

Industrial animal agriculture will place several of the UN Sustainable Development Goals out of reach

The 2030 Sustainable Development Goals (SDGs) were agreed by the members of the United Nations in 2015. They state: “We are determined to take the bold and transformative steps which are urgently needed to shift the world on to a sustainable and resilient path”. Care for animal welfare helps to achieve benefits for all the pillars of sustainability: economic, environmental and social. Industrial animal agriculture will make it very difficult to meet the following SDGs:



SDG 1: End poverty

Industrial animal agriculture out-competes small-scale food producers, thereby undermining their livelihoods

The Director General of the UN Food and Agriculture Organisation (FAO) has said: ***“FAO estimates that more than half of the world’s rural poor are livestock farmers and pastoralists ... We need to make sure that smallholders and pastoralists will not be pushed aside by large capital-intensive operations.”***¹

Meeting this Goal: Small-scale farmers should be helped to provide improved healthcare and nutrition for their animals through better disease prevention, the expansion of veterinary services and the cultivation of fodder crops such as legumes. Better animal health and nutrition result in increased animals’ productivity and longevity. This will improve smallholders’ purchasing power, making them better able to buy the food that they do not produce themselves and to have money available for other essentials such as education and health care. Such developments are enabled and encouraged by an emphasis on animal welfare, including good health and nutrition.²



SDG 2: Achieve food security

Industrial animal agriculture undermines food security by using human-edible crops as animal feed

Industrial animal agriculture is dependent on feeding human-edible cereals and soy to animals that convert them very inefficiently into meat and milk.^{3 4 5} Globally 40% of crop calories are used as animal feed.⁶ The FAO warns that further use of cereals as animal feed could threaten food security by reducing the grain available for people to eat.⁷

Meeting this Goal: Encourage systems with reduced use of human-edible crops as animal feed. A greater proportion of feed should come from materials that we cannot consume such as grass, unavoidable food waste and by-products e.g. citrus pulp, sunflower meal and brewers’ grains.



SDG 3: Ensure healthy lives

Animals reared to good welfare standards often produce meat of higher nutritional quality: Free-range animals – that consume fresh forage and have higher activity levels – often provide meat of higher nutritional quality than animals that are reared industrially. Pasture-fed beef has less fat and higher proportions of the beneficial omega-3 fatty acids than grain-fed beef.⁸

Meat from free-range chickens contains substantially less fat and generally a higher proportion of omega-3 fatty acids than meat from chickens reared industrially. Moreover, the fast growth rates of today's chickens are having a detrimental impact on the nutritional quality of breast meat with increased fat content and less and lower quality protein.⁹

Generating disease: Industrial animal agriculture plays a major role in the emergence, spread and amplification of infectious pathogens, some of which can be transmitted to people.^{10 11}

Antibiotic resistance: Industrial animal agriculture tends to rely on routine use of antibiotics to prevent the diseases that are inevitable when animals are confined in crowded, stressful conditions.¹² Overuse of antibiotics in industrial animal production contributes significantly to antimicrobial resistance in humans.¹³ Animals reared to good welfare standards tend to be healthier and need much fewer antibiotics.

Reduce non-communicable diseases: The high levels of consumption of red and processed meat that have been made possible in the West by industrial animal agriculture contribute to heart disease, obesity, diabetes and certain cancers.^{14, 15, 16}

Meeting this Goal: Rear animals to high welfare standards so reducing use of antibiotics and improving meat quality. Encourage consumption of less but better meat in many parts of the world. However, people with low consumption of animal-derived foods are not expected to reduce their intake. The developing world should aim for a balanced intake of animal-source foods and should not adopt western diets as these have an adverse impact on health.



SDG 6 & 14: Reduce water use and pollution (SDGs 6.3, 6.4 & 14.1). Industrial animal agriculture generally uses and pollutes more surface- and ground- water than grazing systems.¹⁷ This is due to industrial systems' dependence on grain-based feed.¹⁸ Huge quantities of nitrogen fertilisers are used to grow this feed. However, only 30-60% of this nitrogen is taken up by feed crops. Moreover, the concentrate feed given to industrial animals has high levels of nitrogen. Most of this nitrogen is not assimilated by the animals and is instead excreted in their manure. This unabsorbed nitrogen runs off to pollute water and marine ecosystems and to create 'dead zones'.¹⁹

Meeting these Goals: Focus on systems that use only modest amounts of grain-based feed. These have the potential for higher animal welfare and reduced use and pollution of water.

“Intensive livestock production is probably the largest sector-specific source of water pollution” UN World economic and social survey²⁰



SDG 13: Take urgent action to combat climate change: Current levels of meat and dairy consumption will make this goal very hard to achieve.

Meeting this Goal: Hilal Elver, UN Special Rapporteur on the right to food stresses: “The world’s current consumption pattern of meat and dairy products is a major driver of climate change and climate change can only be effectively addressed if demand for these products is reduced”.²¹



SDG 15: Halt biodiversity loss (SDG 15) & Reverse land degradation and improve soil quality (SDGs 2.4 & 15):

Industrial animal agriculture’s huge demand for cereals has fuelled the intensification of crop production. This, with its use of monocultures and agro-chemicals, has led to biodiversity loss,²² soil degradation,^{23 24} and overuse and pollution of water²⁵.

Halt deforestation (SDG 15.2): The growing demand for soy for animal feed and for pasture for cattle are driving the expansion of farmland into forests and other fragile ecosystems with massive loss of wildlife habitats as well as release of stored carbon into the atmosphere.

Meeting this Goal: We need to move to forms of animal production that are much less dependent on feeding soy and cereals to animals. This would halt the expansion of cropland into forests. It would allow crops to be farmed less intensively with reduced use of monocultures and chemical fertilisers and pesticides. This would enable soil and water quality as well as biodiversity to be restored and wildlife to thrive once again.

¹ José Graziano da Silva, 2018. 10th Global Forum for Food and Agriculture: Shaping the Future of Livestock – sustainably, responsibly, efficiently <http://www.fao.org/director-general/my-statements/detail/en/c/1098613/> Accessed 16 March 2018

² Global Forum for Food and Agriculture. Ministers’ Communiqué 2018 <http://www.gffa-berlin.de/en/>

³ Lundqvist, J., de Fraiture, C. Molden, D., 2008. Saving Water: From Field to Fork – Curbing Losses and Wastage in the Food Chain. SIWI Policy Brief. SIWI.

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⁴ Nellemann, C., MacDevette, M., Manders, et al. (2009) *The environmental food crisis – The environment’s role in averting future food crises*. A UNEP rapid response assessment. United Nations Environment Programme, GRID-Arendal, www.unep.org/pdf/foodcrisis_lores.pdf

⁵ Berners-Lee *et al*, 2018. Current global food production is sufficient to meet human nutritional needs in 2050 provided there is radical societal adaptation. *Elem Sci Anth*, 6: 52

⁶ Pradhan *et al*, 2013. Embodied crop calories in animal products. *Environ. Res. Lett.* 8 (2013) 044044

⁷ FAO, 2013. Tackling climate change through livestock

⁸ Research reviewed in Nutritional benefits of higher welfare animal products, 2012. Compassion in World Farming. http://www.ciwf.org.uk/includes/documents/cm_docs/2012/n/nutritional_benefits_of_higher_welfare_animal_products_report_june2012.pdf

⁹ Petracchi M *et al*, 2014. Effect of White Striping on Chemical Composition and Nutritional Value of Chicken Breast Meat, *Italian Journal of Animal Science*, 13:1, 3138, <http://www.tandfonline.com/doi/full/10.4081/ijas.2014.3138>

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- ¹³ World Health Organisation, 2011 http://www.who.int/mediacentre/news/releases/2011/whd_20110406/en/
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